

BOROUGH OF CAMBRIDGE.

REPORT

OF THE

School Medical Officer

AND OF

The Borough Dentist

For the Year 1922.

ANDREW J. LAIRD, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH
AND SCHOOL MEDICAL OFFICER.

W. BAIRD GRANDISON, L.D.S., R.C.S.,

PUBLIC DENTAL OFFICER.

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, CAMBRIDGE.

March 14th, 1923.

To the Chairman and Members of the School Hygiene Committee.

MR CHAIRMAN, LADIES AND GENTLEMEN,

I beg to present to you my report for the year 1922, and would direct attention more especially to the following features :—

The satisfactory physique of the children inspected and the improvement in health and general well being are evidenced not only by the actual measurements of height and weight, but also by the personal testimony of the Assistant Medical Officer. The children are well clothed and well cared for. Conditions discovered which require medical treatment had in a very high proportion received attention by the end of the year. The reduction in the number of children with more or less defective hearing is probably the direct result of the removal of diseased tonsils and adenoids, and the treatment of discharging ears.

Ringworm also, which at the commencement of medical work in the schools was very prevalent, has now been reduced to a very minor place as a cause of absence and loss of education.

The constant supervision of delicate children by the Assistant Medical Officer and the Tuberculosis Officer, and the provision of dinners or cod liver oil to children requiring additional nourishment are having a most beneficial effect on those children.

The hopes which were entertained of further extending this part of the work, by the establishment of an open-air school sufficiently large to accommodate all the children recommended for it, are unhappily not to be realised for some time owing to the restrictions placed upon us.

With this exception I think, however, that the Hygiene Committee may be congratulated upon the result of their year's work.

I am, Ladies and Gentlemen,

Your obedient Servant.

ANDREW J. LAIRD,
School Medical Officer.

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Report of the School Medical Officer.

FOR THE YEAR 1922.

| | | | | |
|---------------------------------|-----|-----|-----|------|
| Number of Elementary Schools | ... | ... | ... | 23 |
| Departments | ... | ... | ... | 44 |
| Average number on the Registers | ... | ... | ... | 7782 |
| Average Attendance | ... | ... | ... | 6791 |

School Premises.—The number of elementary schools in the Borough (exclusive of the Open-Air School and the Hope Class) is 23. The infant department of St Matthew's C.E. (No. 14) School, commonly known as Sturton Street Infants' School, was closed during the year as being no longer required owing to the re-grouping of scholars.

The Brunswick Council Boys' School had to be abandoned during the year owing to a dangerous subsidence, and the scholars are now accommodated temporarily in the Institute in Fitzroy Street.

The closet accommodation at St Philip's Infants' School, mentioned in my report for 1921, has now been increased.

Complaint was made during the year of nuisance arising from the urinals at King Street and Morley Memorial Schools, and steps have been taken by the Education Committee to remedy this.

Open-air class rooms have been placed in the play-grounds of the New Street Infants' and Morley Memorial Infants' Schools.

It is greatly hoped that other open-air class-rooms will be provided wherever the space allows, and I would suggest, if this is done, that shelters somewhat on the plan of those at the open-air school should be provided, as being on the whole more suitable for the purpose than the two already put up.

It may not be out of place here to suggest once more that in the planning of new schools consideration should be given to the needs of medical inspection. Some arrangement might be made so that rooms generally used for school purposes could also be used for the inspections by Doctor, Dentist or Nurse. This would not only facilitate the inspections, but would also avoid disturbance of school work and inconvenience to Teachers, and at the same time also provide for the reasonable comfort of Parents, a large proportion of whom especially in infant schools attend the inspection of their children.

Staff.—The only change during the year was caused by the resignation of the Assistant Dentist, Mr Roberts, on his appointment as Dentist to the Stoke-on-Trent Education Committee. The vacancy was filled by the appointment of Miss E. O. Betts, L.D.S. (Eng.), who fortunately was able to take up her duties immediately, so that there was no interruption of the work.

Groups of Children Inspected.—The children inspected were those usually classified as Entrants, *i.e.*, children entering school for the first time, the eight-year old children (intermediates), the 12 and 13 year old children (leavers), and any other children presented for some special reason ("specials").

The number seen belonging to the first three age groups (routine cases) and the number specially examined were:—

| Routine Cases : | | Boys. | | Girls. | | Total. |
|-----------------|-----|-------|-----|--------|-----|--------|
| Entrants | ... | 293 | ... | 268 | ... | 561 |
| Intermediates | ... | 340 | .. | 326 | ... | 666 |
| Leavers | ... | 406 | ... | 393 | ... | 799 |
| | | <hr/> | | <hr/> | | <hr/> |
| | | 1039 | | 987 | | 2026 |
| | | <hr/> | | <hr/> | | <hr/> |
| Special Cases | ... | 75 | ... | 99 | ... | 174 |

In addition to these, 780 children were re-examined, making the total number of children medically inspected during the year 2,980. The total in 1921 was 3,129.

The routine inspections are 153 less than 1921, being almost entirely due to the smaller number of "entrants." This is what might have been expected from the low birth-rates recorded in the years 1917, 1918 and 1919.

The special inspections show a slight increase (28) as compared with 1921, and the number of re-examinations a very slight decrease (24). It should be noted that the special inspections do not refer to the large number of children who are seen at the inspection clinic. In some areas those appear to be included under this heading, and if any comparison is made with other districts this should be borne in mind.

Inspection Clinic.—A very large number of children are seen at this clinic, which is open every day, from 9.30 a.m. to 1 p.m. An effort has been made to avoid the prolonged waiting of children by grouping those schools from which the largest numbers come, and inviting attendance from them at stated times, *e.g.*, children from East Road Boys', Brunswick Boys' and St Paul's Boys' are asked to attend at 9.30, those from New Street Mixed and East Road Infants' at 10 o'clock, and those from St Paul's Girls', Abbey Mixed, King Street and St Giles' at 10.30.

The number of children attending was 50 less than 1921, but the number of attendances increased by 3237.

| | | | | Children. | Attendances. |
|-------------|-----|-----|-----|-----------|--------------|
| 1st Quarter | ... | ... | ... | 439 | 1864 |
| 2nd Quarter | ... | ... | ... | 550 | 2040 |
| 3rd Quarter | ... | ... | ... | 274 | 2117 |
| 4th Quarter | ... | ... | ... | 609 | 4272 |
| | | | | <hr/> | <hr/> |
| | | | | 1,872 | 10,293 |
| | | | | <hr/> | <hr/> |

Eye Clinic.—The number of children who attended for special examination of the eyesight was 154, being 52 less than 1921.

Co-operation of Parents.—The large proportion of children whose Parents attend the inspections, and the attention given to children as shown by the high proportion receiving treatment for ailments, is evidence of the interest taken by Parents in the work done at the schools. The refusals to permit inspection have been steadily diminishing and have now dropped from 20 per cent. in the first year of inspection to 3 per cent. in 1922.

Review of the facts disclosed by the Inspections.—The height and weight of all children seen are still recorded, but as the numbers at certain ages are too small to be of any value those are not given here.

Boys (Height and Weight).

| Years | No. Examined in 1922 | Average Height in Inches. | | | | Average Weight in Pounds. | | | |
|-------|----------------------------|---------------------------|-------|-------|-------|---------------------------|-------|-------|-------|
| | | 1914 | 1920 | 1921 | 1922 | 1914 | 1920 | 1921 | 1922 |
| 5 | 138 | 40·69 | 41·52 | 41·25 | 41·21 | 38·66 | 39·91 | 39·12 | 39·47 |
| 8 | 344 | 47·30 | 47·50 | 47·85 | 47·38 | 51·63 | 51·63 | 52·62 | 56·44 |
| 12 | 361 | 54·68 | 55·21 | 54·83 | 54·78 | 72·34 | 73·66 | 73·76 | 73·47 |

GIRLS (Height and Weight).

| Years | No. Examined in 1922 | Average Height in Inches. | | | | Average Weight in Pounds. | | | |
|-------|----------------------------|---------------------------|-------|-------|-------|---------------------------|-------|-------|-------|
| | | 1914 | 1920 | 1921 | 1922 | 1914 | 1920 | 1921 | 1922 |
| 5 | 111 | 40·76 | 40·84 | 41·03 | 40·87 | 37·99 | 37·84 | 37·97 | 38·45 |
| 8 | 325 | 47·14 | 47·40 | 47·37 | 47·31 | 50·23 | 50·22 | 50·32 | 50·97 |
| 12 | 339 | 55·98 | 55·85 | 55·51 | 55·91 | 76·81 | 70·17 | 70·35 | 77·41 |

General Physique and State of Nutrition.—Very little is to be gained by an examination of the figures of height and weight, and more importance is to be attached to the opinion expressed by Dr Gurney that the children are improving in this respect. The number with exceptionally good physique is now 9·4 per cent. of the children, and with physique below the average 7·7 per cent. The corresponding figures for 1914 were 15 per cent. above the average and 17 per cent. below the average.

Clothing and Footgear.—As regards these also, the condition of the children during 1922 was found to have improved. Only in 1·1 per cent. was the clothing unsatisfactory and as regards footgear 0·5 per cent.

Cleanliness.—A substantial part of the nurses' time is taken up by the inspections of children in the schools for cleanliness. The number of visits paid by them to schools for this purpose was 283 and the number of inspections made was 16,884. Much time is also taken up by Dr Gurney, the school clerk, attendance officers, and teachers in connection with this very important work, and it is some satisfaction to be able to record the opinion of Dr Gurney that 1922 is the most satisfactory year we have had in this connection, and that real progress has been made. The constant and firm pressure exercised upon persistent offenders has made them realise that it is wiser to keep their children clean than to pay fines in the Police Court. Fewer children required to be excluded on account of their verminous condition, and those excluded have been cleansed more quickly than formerly. The interest shown by Head Teachers and in some schools the precaution of making habitual offenders occupy seats apart is said to have a more deterrent effect than any measure yet tried.

It is difficult to realise what has actually been accomplished. The standard of cleanliness is infinitely higher than it was in the early days of inspection, when, to quote the Annual Report for 1907, "one might say that nits are almost universal in the hair of the girls." The actual proportion of girls found with nits and pediculi in the head in 1907 was 84 per cent. In 1922 it was 16·1 per cent.

Proceedings under the school attendance bye-laws were taken against the Parents of 89 persistently verminous cases. In 53, fines were inflicted varying from 2/6 to 20/-. In others, cautions were given or the cases withdrawn, the children meantime having been cleansed.

Ringworm.—The routine inspections of heads by the Nurses make it practically impossible for any child with ringworm of the head to be very long in school without being detected. The decline in the number of cases now found in Cambridge is to be attributed partly to this, but chiefly to the policy of exclusion and also to the more rapid cure resulting from X-ray treatment. In 1907 the number of cases in the old area of the Borough was 143 (96 of the head and 47 of the body). In 1922 the total for the year was 37 (20 of the scalp and 17 of the body).

In 1921 the number was 39 ; in 1920, 53. Seven of the scalp cases had X-ray treatment at Addenbrooke's Hospital.

External Eye Diseases.—The conditions found were:—Conjunctivitis 26, blepharitis 3, corneal ulcer 2, corneal opacity 1, squint 26, and various other conditions 17.

Defective Vision.—The number found at the routine inspections to have defective eyesight was 89 or 4·4 per cent. The proportion is below both 1921 (6·1 per cent.) and 1920 (5·2 per cent.).

Enlargement of the Cervical Glands.—838 children had palpable cervical glands, the bulk so light as to require no treatment.

Tonsils and Adenoids.—181 children (8·9 per cent.) had enlarged, and 195 (9·6 per cent.) slightly enlarged tonsils. 76 suffered also from adenoids.

Ear Disease and Deafness.—48 (2·3 per cent.) had defective hearing and 22 (1·0 per cent.) had purulent discharges from the ears. Compared with previous years, the figures for which are given below, the numbers found suffering from these defects show a distinct improvement. This is no doubt due to the treatment of adenoids and tonsils and of disease of the middle ear in practically every case. In my report for 1911 it was noted that extremely few parents made any attempt to get advice or treatment for these conditions.

| | | 1911 | | 1912 | | 1913 | | 1914 | | 1922 |
|-----------|-----|------|-----|------|-----|------|-----|------|-----|------|
| Otorrhoea | ... | 3·7 | ... | 1·8 | ... | 1·2 | ... | 1·3 | ... | 1·0 |
| Deafness | ... | 5·6 | ... | 3·7 | ... | 3·4 | ... | 7·6 | ... | 2·3 |

Diseases of the Lungs.—Three children were found at routine inspection with definite signs of tuberculosis of the lungs.

Heart Disease.—130 children had symptoms of heart disease, of which 14 were considered to be organic and the remainder functional.

Defects of Speech were found in 4 cases.

Other Defects.—These include 192 children with anaemia, 32 with nervous diseases, 9 with rickets, 3 with skin disease, 23 with deformities, and 68 others with a variety of minor defects.

Vaccination.—The vaccinal condition of all children examined was noted. The proportion with vaccination marks in 1922 was 31 per cent. In 1909 the proportion found with marks of vaccination was 88 per cent.

Infectious Diseases.

Scarlet Fever.—Out of a total of 100 cases in the Borough, 23 were elementary school children. In 1921 there were 41 school cases in a total of 74.

Diphtheria.—School children provided almost one half of the total cases in 1922, *i.e.*, 43 out of 89; in 1921 there were 19 school cases out of a total of 23.

Measles and Whooping Cough.—These were the most important illnesses of an epidemic character in the schools. The cases began in the early Summer, but the infection made no headway until October, and from then until the end of the year a large number of cases, of a mild type, were notified by Head Teachers.

In April it was agreed by the School Hygiene Committee that in school departments, other than infant departments, contacts of chicken pox, mumps, german-measles and ordinary measles should no longer be excluded from school. The period of exclusion has also been modified in the light of practical experience as follows:—Mumps (as mentioned in my report for 1921, p. 40) is now excluded for 3 weeks, chicken pox until all crusts have fallen off, measles 3 weeks from the date of the rash, and german measles 10 days from the date of the rash.

The notifications received from Teachers and Attendance Officers were as follows:—

| | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 |
|--------------------|------|------|------|------|------|------|
| Influenza | — | 296 | 113 | 33 | 13 | 1 |
| Measles | 160 | 225 | 463 | 538 | 53 | 258 |
| German Measles ... | 2 | 16 | 5 | 1 | 26 | 1 |
| Whooping Cough ... | 20 | 614 | 38 | 75 | 142 | 297 |
| Chicken Pox | 156 | 108 | 175 | 181 | 122 | 55 |
| Mumps | 31 | 13 | 37 | 88 | 1593 | 14 |
| Ringworm | 35 | 32 | 41 | 39 | 23 | 10 |
| Scabies | 17 | 3 | 4 | 1 | 4 | 2 |
| Skin Diseases .. | 18 | 10 | 29 | 43 | 19 | 10 |
| Others | 309 | 488 | 463 | 278 | 172 | 77 |
| Totals | 748 | 1805 | 1427 | 1436 | 2173 | 725 |

TREATMENT OF DEFECTS.

1. *At Addenbrooke's Hospital.*—The X-ray treatment of ringworm of the scalp, the removal of tonsils and adenoids, treatment of otorrhoea and of a variety of other conditions, *e.g.* curvature of the spine, chorea, disease of the eyes, etc., are all undertaken for the Education Committee at the hospital. The Committee give an annual subscription to the Hospital of 50 guineas, and receive two hundred letters of recommendation for the use of school children.

In 1922, 167 children were given letters of recommendation for hospital treatment. This is more than double the number in 1921, and exactly the same number as in 1920. The conditions requiring treatment were (the figures for 1921 being in brackets):—disease of the ears 41 (17), eyes 16 (4), ringworm 3 (4), tonsils and adenoids 24 (9), skin disease 21 (9), minor injuries 10 (7), anaemia 14 (6), hernia 2 (3), chorea 3, various other conditions 33 (12).

2. *Treatment at the School Clinic.*—The number of children referred for refraction at the eye clinic was 154. 53 were found to have defective vision in the course of medical inspection in the schools, and 101 were specially referred to the clinic by the school nurses and teachers.

148 had their vision refracted, 136 of those being done by Dr Gurney at the clinic. Three had not yet been refracted by the end of the year and 3 refused treatment.

All the 148 had spectacles prescribed for them, and by the end of the year 129 had obtained spectacles. Ten had not yet finished paying for their spectacles, two refused to have spectacles and two left school before obtaining them.

For minor ailments (sores, skin diseases, ringworm of the body and minor injuries chiefly) 609 children received treatment at the clinic, the number in 1921 being 479. The number of attendances made at the clinic by those children was 5,471, the number in 1921 being 4,384.

3. Of the 181 children referred for treatment as the result of the routine inspections in schools 163 (90 per cent.) had received treatment by the end of the year. This is only 3 per cent. lower than 1921.

WORK OF THE SCHOOL NURSES.

School Visits.—A total of 479 visits were made to the schools, 130 in connection with the routine medical inspections, 283 for the purpose of examining the condition of cleanliness of the children, 18 in connection with outbreaks of diphtheria, and 48 for various other purposes.

Home Visits.—1,378 home visits were made, 546 for the purpose of following up cases of defect found at routine inspections, and in order to advise parents as to treatment, 722 in connection with infectious diseases, and 137 visits of enquiry as to the cause of absence of children notified as ill by Teachers and School Attendance Officers.

DELICATE AND PHYSICALLY DEFECTIVE CHILDREN.

Open-Air School.—The number on the register at the beginning of the year was 28. During the year 17 left and 21 were admitted, leaving 32 children in attendance at the end of the year. Of those who left 9 were able to return to their ordinary schools, 4 were sent to Sanatoria, 1 was too ill for further attendance, 2 were removed on account of their Parents refusing to pay the charge made for meals, and 1 left, having reached 14 years of age.

The number awaiting a vacancy at the end of the year was 18.

Arrangements for the provision of a new open-air school have occupied a considerable amount of attention during the year. Plans have been prepared but owing to existing financial stringency no further steps are possible at present.

Supervision by the Tuberculosis Officer.—A considerable number of delicate school children are under constant supervision by the Tuberculosis Officer. During the year the number was 161, and 219 reports have been received from the Tuberculosis Officer regarding these children. These children are either themselves tuberculous or are living in contact with cases of tuberculosis. Ninety were excluded from school for varying periods, 42 were either recommended for or were in attendance at the Open-Air School. 64 Certificates of fitness to attend ordinary schools and 57 recommendations for malt and oil or dinners were received.

Provision of Meals.—The dining centre at the old Eden Street schools has been open all the year including part of the summer holidays, the number of children provided with mid-day dinner being one hundred and fourteen. All those children were specially examined by Dr Gurney and recommended on medical grounds.

In addition 207 children have been receiving on the recommendation of Dr Gurney or of the Tuberculosis Officer cod-liver oil and malt at the schools.

All these children are seen monthly by Dr Gurney at the clinic, their condition noted and weights taken, and at the end of each term a report on their condition is submitted to the School Hygiene Committee.

The improvement in health of the children having malt and oil is shown not only by the steady gain in weight of the majority, but by their improved appearance. Many of the Teachers have commented upon this, and even those who were somewhat doubtful of its use are now among those who recommend children for malt and oil.

The assessment for payment of meals is undertaken by the Care Committee. The following is the income scale which the Hygiene Committee have adopted (as revised from December 1st, 1922), for a period of six months. Where the net weekly income after deducting payments for rent, clubs, insurance, and 10/- for upkeep, does not exceed:—

| | | | | | | |
|-----|--------|------------|-----------------------------------|---|---|---------------------|
| 4/- | a head | (Scale A): | Meals and Cod Liver Oil are free. | | | |
| 5/- | " | (Scale B): | " | " | " | $\frac{1}{4}$ cost. |
| 6/- | " | (Scale C): | " | " | " | $\frac{1}{2}$ cost. |
| 7/- | " | (Scale D): | " | " | " | $\frac{3}{4}$ cost. |

or in tabular form showing net weekly income in shillings after deductions for rent, clubs and insurance but plus the 10/- upkeep.

| No. in family. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------|------|------|------|------|------|------|------|------|------|------|
| Scale A | 14/- | 18/- | 22/- | 26/- | 30/- | 34/- | 38/- | 42/- | 46/- | 50/- |
| „ B | 15/- | 20/- | 25/- | 30/- | 35/- | 40/- | 45/- | 50/- | 55/- | 60/- |
| „ C | 16/- | 22/- | 28/- | 34/- | 40/- | 46/- | 52/- | 58/- | | |
| „ D | 17/- | 24/- | 31/- | 38/- | 45/- | 52/- | 59/- | 66/- | | |

Blind, Deaf, Feeble-minded and Epileptic Children.—The number of children belonging to those categories who are maintained in Institutions by the Local Education Authority are :—Blind 3, deaf 1, deaf and dumb 7, feeble-minded 6.

Three children were notified as imbecile or idiot to the Local Control Authority during the year.

The Hope Class for Backward Children.—The number of children in this class at the beginning of the year was 42. Six left and two were admitted during the year, leaving 38 on the register at the end of 1922. Three of the children who left had attained the age of fourteen, one went to live in London, one was transferred to St Philip's School on going to live at the Children's Home in Ross Street, and one who had been notified to the Local Control Authority was removed as unsuitable for the class.

The Voluntary Association for Mental Welfare undertakes the home supervision of those children and presents periodical reports for the information of the Hygiene Committee.

Once a year a sub-committee of the Hygiene Committee visits and sees those children in the Hope Class who are twelve years old, with a view to deciding what action, if any, should be taken either in the way of having them sent to their ordinary or to a special school.

Payment by Parents for Treatment, etc.—The question of the payment for all forms of treatment provided by the Education Committee has been discussed. Early in the history of the dental scheme charges were made for treatment and subsequently abandoned on the grounds that not only were they a definite barrier to acceptance of treatment, but also the actual amount received was not worth the cost of collecting.

With regard however to the payments for meals, etc., the scale mentioned above has been in operation for some time and the amount paid during the year has been as follows :—

| | £ | s. | d. |
|--|-----|----|----|
| Open Air School—Meals | 132 | 13 | 0 |
| Dinners at the Eden Street Centre | 28 | 6 | 0 |
| Malt and Cod Liver Oil | 115 | 1 | 7 |
| Spectacles | 54 | 2 | 7 |

Employment of School Children.—Byelaws have now been framed and approved and came into operation in June, 1922.

Employment under the age of twelve is entirely prohibited and between 12 and 14 is subject to definite restrictions—viz. :

(a) On school days between 5 p.m. and 7 p.m.

(b) On week-days when school is closed, for not more than four hours between 8 a.m. and 7 p.m., and the child is to be free for a continuous period of not less than 5 hours, between 12 noon and 7 p.m.

- (c) On Sundays the only employment permitted is to children between 13 and 14 in the delivery of milk between 7.30 a.m. and 9.30 a.m.

Two other important conditions contained in the bye-laws are :—

1. That all children to be employed must first have been examined as to fitness by the School Medical Officer.
- and 2. The employer is required to provide "efficient waterproof footwear and a sufficient waterproof garment" to any child employed outdoor.

Girls under 16 and boys under 15 are prohibited to trade in the streets, and boys under 16 are examined by the School Medical Officer as to their physical and mental fitness to trade in the streets.

The number of children between 12 and 14 examined and certified as fit for employment during 1922 was 47 and the number of boys certified as fit for street trading was 3.

TABLE I.—Number of Children inspected 1st January to 31st December, 1922.

Entrants.

| Age | ... | ... | ... | 3 | 4 | 5 | 6 | Other Ages. | Total. |
|-------|-----|-----|-----|----|-----|-----|-----|-------------|--------|
| Boys | ... | ... | ... | 41 | 61 | 137 | 51 | 3 | 293 |
| Girls | ... | ... | ... | 45 | 52 | 102 | 64 | 5 | 268 |
| Total | ... | ... | ... | 86 | 113 | 239 | 115 | 8 | 561 |

| Age | ... | .. | Inter- mediate. 8 | Leavers. | | | Other Ages. | Total. | Grand Total. |
|-------|-----|-----|-------------------------|----------|----|----|----------------|--------|-----------------|
| | | | | 12 | 13 | 14 | | | |
| Boys | ... | ... | 340 | 369 | 29 | 2 | 6 | 746 | 1039 |
| Girls | ... | ... | 326 | 335 | 46 | 10 | 2 | 719 | 987 |
| Total | ... | ... | 666 | 704 | 75 | 12 | 8 | 1465 | 2026 |

B. Special inspections.

| | | Special Cases. | Re-Examinations (No. of Children re-examined). |
|-------|-----|-------------------|---|
| Boys | ... | 75 | 390 |
| Girls | ... | 99 | 390 |
| Total | | 174 | 780 |

- C. Total number of individual children inspected by the Medical Officer as Routine or Special Cases. (No child being counted more than once in a year).

No. of Individual Children inspected 2200 c

TABLE II.—Return of Defects found in the course of Medical Inspection in 1922

| Defect or Disease. | | | | | Routine Inspections. | | Specials. | |
|-----------------------|------------------------------------|-----|-----|-----|--------------------------------|---|--------------------------------|--|
| | | | | | Number referred for treatment. | Number requiring to be kept under observation but not referred for treatment. | Number referred for treatment. | Number required to be kept under observation but not referred for treatment. |
| Skin | Malnutrition | ... | ... | ... | — | 30 | — | 1 |
| | Uncleanliness : | | | | | | | |
| | Head (nurse's inspections) | ... | | | — | — | — | — |
| | Body | ... | ... | ... | — | — | — | — |
| | Ringworm : | | | | | | | |
| | Head | ... | ... | ... | — | — | — | — |
| | Body | ... | ... | ... | — | — | — | — |
| | Scabies | ... | ... | ... | — | — | — | — |
| | Impetigo | ... | ... | ... | — | — | — | — |
| | Other Diseases (not tubercular) | ... | | | — | — | — | — |
| Eye | Blepharitis | ... | ... | ... | — | — | — | — |
| | Conjunctivitis | ... | ... | ... | 1 | — | — | 1 |
| | Keratitis | ... | ... | ... | — | — | — | — |
| | Corneal Ulcer | ... | ... | ... | 1 | — | — | — |
| | Corneal Opacities | ... | ... | ... | — | — | — | — |
| | Defective Vision | ... | ... | ... | 41 | 41 | 12 | 5 |
| | Squint | ... | ... | ... | 2 | 3 | — | — |
| Ear | Other conditions | ... | ... | ... | — | 1 | — | — |
| | Defective Hearing | ... | ... | ... | 22 | 29 | 1 | 8 |
| | Otitis Media | ... | ... | ... | — | — | — | — |
| | Other Ear Disease | ... | ... | ... | 9 | 2 | — | 2 |
| Nose and Throat | Enlarged Tonsils | ... | ... | ... | 3 | 178 | 1 | 2 |
| | Adenoids | ... | ... | ... | 21 | 30 | 5 | 1 |
| | Enlarged Tonsils and Adenoids | ... | ... | ... | 9 | 16 | 4 | 1 |
| | Other Conditions | ... | ... | ... | 1 | 4 | — | — |
| Teeth. | Defective Speech | ... | ... | ... | — | — | — | 1 |
| | Dental Disease (see Dental Report) | ... | ... | ... | — | — | — | — |
| | Heart Disease : | | | | | | | |
| Heart and Circulation | Organic | ... | ... | ... | 1 | 13 | — | — |
| | Functional | ... | ... | ... | 1 | 40 | 1 | 1 |
| | Anæmia | ... | ... | ... | 51 | 70 | 4 | 1 |
| Lungs | Bronchitis | ... | ... | ... | 1 | — | — | — |
| | Other Non-Tubercular Diseases | ... | | | — | 8 | — | 2 |

| Defect or Disease. | | | | | Routine Inspections. | | Specials. | |
|--|---------------------------|-----|-----|-----|--------------------------------|--|--------------------------------|--|
| | | | | | Number referred for treatment. | Number requiring to be kept under observation, but not referred for treatment. | Number referred for treatment. | Number requiring to be kept under observation, but not referred for treatment. |
| Tuber- culosis | Pulmonary : | | | | | | | |
| | Definite | ... | ... | ... | — | I | — | I |
| | Suspected | ... | ... | ... | — | — | — | — |
| | Non-Pulmonary | ... | ... | ... | — | — | — | — |
| | Glands | ... | ... | ... | — | — | — | — |
| | Spine | ... | ... | ... | — | — | — | — |
| | Hip | ... | ... | ... | — | — | — | — |
| | Other Bones and Joints | ... | ... | ... | — | — | — | — |
| | Skin | ... | ... | ... | — | — | — | — |
| Nervous System | Other Forms | ... | ... | ... | — | — | — | — |
| | Epilepsy | ... | ... | ... | — | — | — | — |
| | Chorea | ... | ... | ... | 8 | I | I | — |
| Deform- ities | Other Conditions | ... | ... | ... | 6 | 8 | — | 2 |
| | Rickets | ... | ... | ... | I | — | — | — |
| | Spinal Curvature | ... | ... | ... | 10 | I | — | — |
| | Other Forms | ... | ... | ... | I | I | — | — |
| | Other Defects or Diseases | ... | ... | ... | 10 | 26 | 4 | 16 |
| Number of Individual Children having defects which required Treatment or to be kept under observation | | | | | 181 | 441 | 32 | 44 |

TABLE III. Numerical return of all Exceptional Children.

| | | | Boys. | Girls. | Total. |
|---|---------------|---|-------|--------|--------|
| Blind (including partially blind), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893. | | Attending Public Elementary Schools ... | 2 | — | 2 |
| | | Attending Certified Schools for the Blind | — | 2 | 2 |
| | | Not at School ... | — | — | — |
| Deaf and Dumb (including partially deaf), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893. | | Attending Public Elementary Schools ... | 4 | 2 | 6 |
| | | Attending Certified Schools for the Deaf | 7 | 3 | 10 |
| | | Not at School ... | 1 | — | 1 |
| Mentally Deficient | Feeble-minded | Attending Public Elementary Schools ... | 11 | 6 | 17 |
| | | Attending Certified Schools for Mentally Defective Children... | 9 | 3 | 12 |
| | | Notified to the Local Control Authority by Local Education Authority during the Year. ... | 1 | — | 1 |
| | | Not at School ... | 1 | 1 | 2 |
| | | | | | |
| | Imbeciles | Attending Public Elementary Schools ... | — | — | — |
| | | Notified to the Local Control Authority during the year ... | — | — | — |
| | | Not at School ... | — | — | — |
| | Idiots | Notified to the Local Control Authority during the year ... | 3 | — | 3 |
| | | Not notified to the Local Control Authority ... | — | — | — |
| | Epileptics | Attending Public Elementary Schools ... | 8 | 3 | 11 |
| | | Attending Certified Schools for Epileptics | 2 | — | 2 |
| | | In Institutions, other than Certified Schools | — | — | — |
| | | Not at School ... | — | 2 | 2 |

| | | | Boys. | Girls. | Total. |
|----------------------|---|---|-------|--------|--------|
| Physically Defective | Pulmonary Tuberculosis | Attending Public Elementary Schools ... | 40 | 14 | 54 |
| | | Attending Certified Schools for Physically Defective Children ... | — | 3 | 3 |
| | | In Institutions other than Certified Schools | 3 | 1 | 4 |
| | | Not at School ... | 11 | 9 | 20 |
| | Crippling due to Tuberculosis | Attending Public Elementary Schools ... | 7 | 2 | 9 |
| | | Attending Certified Schools for Physically Defective Children ... | — | 1 | 1 |
| | | In Institutions other than Certified Schools | — | — | — |
| | | Not at School ... | 1 | — | 1 |
| | Crippling due to causes other than Tuberculosis, <i>i.e.</i> , Paralysis, Rickets, Traumatism. | Attending Public Elementary Schools ... | 4 | 8 | 12 |
| | | Attending Certified Schools for Physically Defective Children ... | — | — | — |
| | | In Institutions other than Certified Schools | 2 | 2 | 4 |
| | | Not at School ... | — | 1 | 1 |
| | Other Physical Defectives, <i>e.g.</i> , delicate and other Children suitable for admission to Open-Air Schools ; Children suffering from severe Heart Disease. | Attending Public Elementary Schools ... | 30 | 17 | 47 |
| | | Attending Open-Air Schools ... | 21 | 12 | 23 |
| | | Attending Certified Schools for Physically Defective Children other than Open-Air Schools ... | — | 5 | * 5 |
| | | Not at School ... | 4 | 2 | 6 |
| Dull or Backward. | | Retarded 2 years ... | 75 | 35 | 110 |
| | | Retarded 3 years ... | 37 | 25 | 62 |

TABLE IV. Treatment of Defects of Children during 1922.
A. Treatment of Minor Ailments.

| Disease or Defect. | Number of Children. | | | |
|----------------------------------|-------------------------------|---|------------|--------|
| | Referred for treatment. | Treated. | | Total. |
| | | Under Local Edu- cation Authority's Scheme. | Otherwise. | |
| Skin | | | | |
| Ringworm—Head | 20 | 7 | 13 | 20 |
| „ Body | 17 | 11 | 6 | 17 |
| Scabies | 14 | 4 | 10 | 14 |
| Impetigo... .. | 70 | 51 | 19 | 70 |
| Minor Injuries | 311 | 308 | 3 | 311 |
| Other Skin Diseases | 123 | 115 | 8 | 123 |
| Ear Disease | 23 | 23 | — | 23 |
| Eye Disease (external and other) | 219 | 209 | 2 | 211 |
| Miscellaneous | 106 | 93 | 13 | 106 |

B. Treatment of Visual Defects.

| Number of Children. | | | | | | | | | |
|--------------------------|---|--------------------------------------|------------|--------|-----------------------------------|---------------------------------|--|-----------------------------------|---|
| | Submitted to Refraction. | | | | | | | | |
| Referred for Refraction. | Under Local Education Authority's Scheme—Clinic | By Private Practitioner or Hospital. | Otherwise. | Total. | For whom glasses were prescribed. | For whom glasses were provided. | Recommended for treatment other than by glasses. | Received other form of treatment. | For whom no treatment was considered necessary. |
| 154 | 136 | 10 | 2 | 148 | 143 | 132 | 1 | 1 | 1 |

C. Treatment of Defects of Nose and Throat.

| Referred for Treatment. | Number of Children. | | | Received other forms of Treatment. |
|-------------------------------|--|--|--------|--|
| | Under Local Education Authority's Scheme Clinic or Hospital. | By Private Practitioner or Hospital. | Total. | |
| 42 | 25 | 0 | 25 | 2 |

D. Treatment of Dental Defects.

1.—*Number of Children dealt with.*

| | Age Groups. | | | | | | | | | | “Specials.” | Total. |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|--------|
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| a. Inspected by Dentist ... | 543 | 541 | 478 | 572 | 524 | 584 | 550 | 619 | 546 | 319 | 576 | 5852 |
| b. Referred for Treatment ... | 2892 | | | | | | | | | | 576 | 3468 |
| c. Actually Treated... | 2357 | | | | | | | | | | 576 | 2933 |
| d. Re-Treated* (Result of Periodical Examination) | 1102 | | | | | | | | | | — | 1102 |

* It is understood that cases under this head are also included under (c) above.

2.—*Particulars of the Time Given and of Operations Undertaken.*

| No. of Half Days devoted to Inspection. 1 | No. of Half Days devoted to Treatment. 2 | Total No. of Attendances made by Children at the Clinic. 3 | No. of Permanent Teeth. | | No. of Temporary Teeth. | | Total No. of Fillings. 8 | No. of Administrations of General Anaesthetics in (4) and (6). 9 | No. of Other Operations. | |
|--|---|---|-------------------------|--------------|-------------------------|--------------|-----------------------------|---|--------------------------|------------------------|
| | | | Extracted. 4 | Filled. 5 | Extracted. 6 | Filled. 7 | | | Permanent Teeth. 10 | Temporary Teeth. 11 |
| 54 | 662 | 4784 | 512 | 2268 | 6364 | 2795 | 5063 | 0 | 39 | 172 |

TABLE V.—Summary of treatment of defects as shown in Table IV.

| | Number of Children. | | | |
|--------------------------------|-------------------------|---|------------|--------|
| | Referred for Treatment. | Treated. | | |
| | | Under Local Education Authorities Scheme. | Otherwise. | Total. |
| Minor Ailments ... | 903 | 744 | 151 | 895 |
| Visual Defects ... | 154 | 136 | 12 | 148 |
| Defects of Nose and Throat ... | 42 | 25 | — | 25 |
| Dental Defects ... | 3468 | 2933 | — | 2933 |
| Other Defects ... | 108 | 29 | 60 | 89 |
| Total ... | 4675 | 3867 | 223 | 4090 |

TABLE VI.—Summary relating to children medically inspected at the routine inspections during the year 1922.

| | | | | | | |
|-----|--|-------------|-----|-----|-----|------|
| (1) | The total number of children medically inspected at routine inspections*... .. | | | | | 2026 |
| (2) | The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment) | | | | | 441 |
| (3) | The number of children in (1) suffering from : | | | | | |
| | Malnutrition (below average) | ... | ... | ... | ... | 150 |
| | Skin Diseases | ... | ... | ... | ... | 3 |
| | Defective Vision (including Squint) | ... | ... | ... | ... | 115 |
| | Eye Diseases | ... | ... | ... | ... | 49 |
| | Nose and Throat Diseases | ... | ... | ... | ... | 461 |
| | Enlarged Cervical Glands | ... | ... | ... | ... | 838 |
| | Defective Speech | ... | ... | ... | ... | 4 |
| | Dental Disease (see Dental Report)... | ... | ... | ... | ... | — |
| | Heart Disease— | | | | | |
| | Organic | ... | ... | ... | ... | 14 |
| | Functional | ... | ... | ... | ... | 116 |
| | Anaemia | ... | ... | ... | ... | 192 |
| | Lung Disease (non tubercular) | ... | ... | ... | ... | 19 |
| | Pulmonary | { definite | ... | ... | ... | 3 |
| | | { suspected | ... | ... | ... | 1 |
| | Non Pulmonary | ... | ... | ... | ... | 6 |
| | Diseases of the Nervous System | ... | ... | ... | ... | 23 |
| | Deformities | ... | ... | ... | ... | 32 |
| | Other Defects and Diseases | ... | ... | ... | ... | 68 |
| (4) | The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, &c.) ... | | | | | 181 |
| (5) | The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, &c.) | | | | | 163 |

* Specials are not included in this Table.

REPORT

ON

DENTAL INSPECTION

AND

TREATMENT OF SCHOOL CHILDREN

For the Year 1922.

BY

W. BAIRD GRANDISON, L.D.S., R.C.S., Edin.

PUBLIC DENTAL OFFICER.

THE DENTAL INSTITUTE,
35, PARK SIDE,
CAMBRIDGE.

December 31st, 1922.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have the honour to submit the Fifteenth Report of the working of the Dental Institute, covering the period from January 1st, 1922, to December 31st, 1922, inclusive.

During the year Mr T. H. Roberts, L.D.S. (Livp.) resigned his appointment as Assistant Public Dental Officer, having accepted an appointment under the Stoke-on-Trent Authority. Fortunately no inconvenience was suffered as a result of this resignation, as Miss Evelyn O. Betts, L.D.S. Eng., who was appointed his successor, was able to commence her duties at once.

I desire to acknowledge the valuable help of my Assistant and Dental Attendants in the compilation of the Statistics necessary for this report.

I am,

Ladies and Gentlemen,

Your Obedient Servant,

W. BAIRD GRANDISON.

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Report on the Dental Inspection and Treatment of School Children.

FOR THE YEAR 1922.

I.—SCOPE OF THE SCHEME.

The Fifteenth Report on the working of the Dental Institute covers the year 1922, and, as there were no interruptions, relates to twelve months actual treatment. All the children of all ages are embraced within the scheme, and although active conservative treatment was extended to the temporary dentition, the great increase in the amount of work to be performed has not, I am pleased to report, prevented us overtaking the arrears which had accumulated in 1921, as the result of changes in the Staff, to a point equal to no less than five months delay.

IA.—INSPECTIONS.

During 1922, 54 Inspection Sessions were held, 662 Treatment Sessions were held, and 35 Sessions devoted to work of an administrative and organising character.

It is important to inspect as many children as possible in one Session, as no great good can be accomplished by an over zealous handling of the probe and mirror, especially when every child requiring treatment is, by virtue of coming to the Clinic, re-inspected. It is sufficient to examine apparently sound Dentures most carefully and the remainder casually.

II.—SUMMARY OF WORK DONE.

A.—Table showing the number of children examined and the number of children treated during 1922 :—

| Month. | No. of Children Examined | Number of Children Treated for :— | | | No. of Children Refusing Further Treatment |
|-------------|--------------------------|-----------------------------------|--------------------------|-------------------|--|
| | | Fillings only. | Fillings and Extractions | Extractions only. | |
| January ... | 220 | 45 | 91 | 36 | 3 |
| February... | 259 | 43 | 86 | 69 | — |
| March ... | 468 | 73 | 85 | 46 | — |
| April ... | 327 | 53 | 78 | 38 | — |
| May ... | 476 | 76 | 186 | 84 | — |
| June ... | 820 | 166 | 167 | 116 | — |
| July ... | 670 | 93 | 107 | 60 | 9 |
| August* ... | — | — | — | — | — |
| September | 646 | 94 | 143 | 87 | 4 |
| October ... | 434 | 70 | 130 | 57 | 3 |
| November | 667 | 61 | 162 | 177 | 8 |
| December | 289 | 39 | 35 | 39 | — |
| Total ... | 5276 | 813 | 1270 | 809 | 27 |

* Clinic closed for vacation.

The above figures include treatment of the Temporary Dentition.

It will be seen that during the year 1922 the number of children comprised in the routine examinations was 5,276. This total is 3,009 more than in the year 1921. The number of children treated during the year 1922 was 2,892 ; 2,357 children inspected had sound dentitions and 27 children had not their treatment completed. In addition 608 children were inspected, but refused treatment, being a percentage of 10.3 per cent.

B.—Table showing the number of Operations performed during the year 1922.

| Month. | | FILLINGS. | | | EXTRACTIONS. | | Teeth Treated with Nitrate of Silver. |
|-----------|-----|-----------|---------------------|-----------------------------------|------------------|------------------|---------------------------------------|
| | | Amalgam. | Amalgam and Cement. | Amalgam with Root Canal treatment | Temporary Teeth. | Permanent Teeth. | |
| January | ... | 286 | 16 | 1 | 369 | 20 | 74 |
| February | ... | 250 | 29 | 9 | 477 | 13 | 71 |
| March | ... | 293 | 20 | 9 | 301 | 45 | 81 |
| April | ... | 283 | 28 | 8 | 284 | 56 | 63 |
| May | ... | 504 | 12 | 14 | 758 | 67 | 83 |
| June | ... | 417 | 79 | 16 | 809 | 82 | 370 |
| July | ... | 378 | 9 | 19 | 502 | 27 | 204 |
| August* | ... | — | — | — | — | — | — |
| September | ... | 507 | 26 | 12 | 702 | 48 | 272 |
| October | ... | 337 | 58 | 21 | 479 | 39 | 123 |
| November | ... | 348 | 17 | 19 | 880 | 49 | 172 |
| December | .. | 156 | 7 | 2 | 212 | 8 | 57 |
| Total | ... | 3759 | 301 | 130 | 5773 | 454 | 1570 |

* Closed during August for vacation.

The above figures include treatment of the temporary dentition.

One session each week was devoted to work on casual cases chiefly to relieve pain, and, as the Statistics resulting therefrom are not included in Table B, particulars relating to work on casual cases is recorded herewith.

Bb.—Table showing the number of children attending as Casual Cases and the Operations connected therewith.

| Number of Casual Cases | Number of Extractions | | Number of Fillings | | Number of Teeth treated with Nitrate of Silver |
|------------------------|-----------------------|-----------------|--------------------|-----------------|--|
| | Temporary Teeth | Permanent Teeth | Temporary Teeth | Permanent Teeth | |
| 576 | 591 | 68 | 43 | 33 | 59 |

The total number of temporary teeth extracted during the year 1922, excluding casual cases, was 5773, and the total number of permanent teeth extracted was 454. The meaning of this important statement is that from the mouths of 5276 children who had been inspected 6227 areas of septic infection have been removed, areas which not only give pain in the majority of cases to the young children, but which, by their very existence, render the children concerned susceptible to many ailments, the source of which is nothing more nor less than an unsaveable tooth. That these results have been accomplished is wholly due to the application of local anaesthesia by injection. By its use the Dental Surgeon is able to obtain the complete confidence of young children, an all important factor in dental treatment.

Furthermore, by removing the temporary teeth which were unsaveable the possibility of permanent injury to the permanent dentition is also removed and irregularities, one of the chief causes of decay in teeth, reduced to a minimum. Prevention of decay in teeth is better than cure, and our aim is prevention.

III.—SUMMARY OF ALL EXAMINATIONS.

C.—Table showing the results of an examination of the Teeth of Elementary School Children.

| Age. | Number of Children Examined. | Number of Temporary Teeth | | | Number of Permanent Teeth | | |
|---------|------------------------------|---------------------------|------------------|---------------------|---------------------------|------------------|---------------------|
| | | Sound. | Decayed Saveable | Decayed Unsaveable. | Sound. | Decayed Saveable | Decayed Unsaveable. |
| 5 Years | 543 | 9339 | 895 | 399 | 174 | 1 | — |
| 6 „ | 541 | 7531 | 896 | 948 | 1873 | 68 | — |
| 7 „ | 478 | 5265 | 642 | 829 | 3575 | 178 | 4 |
| 8 „ | 572 | 4581 | 445 | 1093 | 6017 | 269 | 19 |
| 9 „ | 524 | 3034 | 232 | 956 | 6930 | 301 | 19 |
| 10 „ | 584 | 2408 | 109 | 810 | 8662 | 329 | 42 |
| 11 „ | 550 | 1345 | 61 | 457 | 10926 | 315 | 101 |
| 12 „ | 619 | 774 | 30 | 232 | 13142 | 315 | 140 |
| 13 „ | 546 | 310 | 7 | 69 | 12528 | 326 | 94 |
| 14 „ | 319 | 89 | — | 20 | 7097 | 180 | 59 |
| Total | 5276 | 34676 | 3317 | 5813 | 70930 | 2282 | 478 |

D.—Table calculated from Table C giving the average results for 100 Children in Each Year of Age.

| Age. | Number of Children Examined. | Number of Temporary Teeth | | | Number of Permanent Teeth | | |
|---------|------------------------------|---------------------------|------------------|---------------------|---------------------------|------------------|----------------------|
| | | Sound. | Decayed Saveable | Decayed Un-saveable | Sound. | Decayed Saveable | Decayed Un-saveable. |
| 5 Years | 100 | 1720 | 164 | 73 | 32 | 1 | — |
| 6 „ | 100 | 1392 | 165 | 174 | 346 | 12 | — |
| 7 „ | 100 | 1102 | 134 | 152 | 748 | 37 | 8 |
| 8 „ | 100 | 801 | 77 | 189 | 1052 | 47 | 3 |
| 9 „ | 100 | 579 | 44 | 182 | 1324 | 57 | 3 |
| 10 „ | 100 | 412 | 18 | 138 | 1483 | 56 | 7 |
| 11 „ | 100 | 245 | 11 | 83 | 1987 | 57 | 18 |
| 12 „ | 100 | 117 | 4 | 37 | 2123 | 50 | 22 |
| 13 „ | 100 | 57 | 1 | 13 | 2295 | 59 | 17 |
| 14 „ | 100 | 28 | — | 6 | 2225 | 56 | 18 |

The actual number of children examined during the year 1922 excluding casual cases, was 5,276. In addition 576 children were examined and treated for the relief of pain.

The temporary and permanent teeth are arranged in three divisions, those which were sound, those which were decayed but were saveable, those which were decayed and unsaveable, and therefore required extraction.

Table C shows the results of the examination of the teeth of the children, while Table D shows the figures in the preceding Table expressed in the ratio of 100 children of each age, to enable comparison with the figures given with the reports for previous years.

The total number of teeth examined in the routine cases was 117,496. Of 43,806 temporary teeth 79·1 per cent. were sound. This is an increase of 11·5 per cent. over the corresponding proportion for the year 1921, thus showing a marked improvement in the condition of the temporary dentition due, no doubt, to active conservative treatment which was commenced in March, 1921. The percentage of decayed saveable temporary teeth has diminished from 13·7 per cent. in the year 1921 to 7·5 per cent. in the year 1922. Similarly there is a diminution in the percentage of decayed unsaveable temporary teeth, that for the year 1921 being 18·5 per cent. and for the year 1922 13·2 per cent., a reduction of 5·3 per cent. The condition of the permanent Dentition is also most satisfactory, the number of decayed saveable teeth after treatment being only 47 and the number of decayed unsaveable teeth being only 24.

*I.—Table showing the distribution of Unsaveable Permanent Teeth.

| Year. | Number of Children grouped with the Number of unsaveable Permanent Teeth in each Mouth. | | | | | | | Total Number of Children with Unsaveable Per- manent Teeth. | Total Number of Unsaveable Per- manent Teeth. |
|-------|---|-----|------|-----|----|-----|------------------|--|---|
| | I. | II. | III. | IV. | V. | VI. | VII. or more. | | |
| 1922 | 151 | 82 | 22 | 23 | 1 | — | — | 279 | 478 |

* Tables indicated alphabetically may be compared with similar Tables in previous reports. Tables indicated numerically are usually peculiar to this Report.

E.—Table showing the number of children examined before treatment, and the number and percentage having no decay present, as also the number and age of children without permanent teeth emerged, and the number and age of children who had lost all their temporary teeth.

| Age. | Number of Children Examined. | No Decay including Both Dentitions. | | Number of Chil- dren without Permanent Teeth | Number of Chil- dren without Temporary Teeth |
|---------|------------------------------------|--|------------|--|--|
| | | Number of Children. | Percentage | | |
| 5 Years | 543 | 262 | 48.2% | 471 | — |
| 6 " | 541 | 153 | 28.2 | 141 | — |
| 7 " | 478 | 164 | 34.3 | 16 | — |
| 8 " | 572 | 198 | 34.6 | — | 2 |
| 9 " | 524 | 177 | 33.7 | 1 | 9 |
| 10 " | 584 | 251 | 42.9 | — | 79 |
| 11 " | 550 | 257 | 46.7 | — | 158 |
| 12 " | 619 | 371 | 59.9 | — | 335 |
| 13 " | 546 | 337 | 61.7 | — | 384 |
| 14 " | 319 | 214 | 67.0 | — | 259 |
| Total | 5276 | 2384 | 45.1 | 629 | 1226 |

II.—Table showing the age and number of children inspected, and the number and percentage having no decay, one or two, three or four, five or six, seven or more decayed teeth present, both dentitions combined, before treatment in the year 1922.

| Age. | No. of Children Examined. | Number and Percentage of Children who each had before treatment. | | | | | | | | | |
|-----------|---------------------------|--|-----|---------------------|-----|------------------------|-----|----------------------|-----|------------------------|-----|
| | | None Decayed. | % | One or Two Decayed. | % | Three or Four Decayed. | % | Five or Six Decayed. | % | Seven or More Decayed. | % |
| 5 Years | 543 | 262 | 48% | 70 | 12% | 82 | 15% | 69 | 12% | 60 | 11% |
| 6 „ | 541 | 153 | 28 | 86 | 15 | 109 | 20 | 85 | 15 | 108 | 19 |
| 7 „ | 478 | 164 | 34 | 69 | 14 | 76 | 16 | 73 | 15 | 96 | 20 |
| 8 „ | 572 | 198 | 34 | 72 | 12 | 118 | 20 | 76 | 13 | 108 | 18 |
| 9 „ | 524 | 177 | 34 | 88 | 16 | 104 | 19 | 88 | 16 | 67 | 12 |
| 10 „ | 584 | 251 | 43 | 89 | 15 | 105 | 18 | 85 | 14 | 54 | 8 |
| 11 „ | 550 | 257 | 47 | 134 | 24 | 100 | 19 | 44 | 8 | 15 | 2 |
| 12 „ | 619 | 371 | 59 | 126 | 20 | 77 | 12 | 26 | 4 | 19 | 3 |
| 13 „ | 546 | 337 | 61 | 125 | 22 | 53 | 9 | 25 | 4 | 6 | 1 |
| 14 „ | 319 | 214 | 67 | 61 | 19 | 32 | 10 | 10 | 3 | 2 | 6 |
| Total ... | 5276 | 2384 | 45 | 920 | 17 | 856 | 16 | 581 | 11 | 535 | 10 |

Table E shows that on examination and before treatment 2384 children were found to have sound dentitions, either naturally or artificially.

Table II. shows how the decayed teeth found were distributed, and it will be noticed that 33 per cent. of the children have four or less teeth decayed. If to this percentage we add the 45 per cent. of children with sound dentitions, we find that 22 per cent. of all the children examined have more than four decayed teeth each, as compared with 38.6 per cent. in the year 1921, a decrease again of 16.6 per cent. All these figures apply to both dentitions, and refer to the condition prior to treatment. The temporary dentition was responsible for the majority of the 22 per cent. of the children who had more than four teeth decayed.

F.—Table showing the number and age of children with permanent teeth, and the number and percentage having sound permanent teeth, artificially sound permanent teeth after treatment, during the year 1922, one or more unsaveable permanent teeth, and one or more decayed but saveable permanent teeth, which were not treated.

| Age. | Number with Per- manent Teeth. | Number of Children whose Permanent Teeth were | | | | | | Number of Chil- dren who had Decayed Saveable Permanent Teeth but who refused treatment. | |
|---------|-----------------------------------|--|------|-------------------------------|------|-------------|------|---|-----|
| | | Sound. | | Made Artifici- ally Sound. | | Unsaveable. | | | |
| | | | % | | % | | % | | % |
| 5 Years | 81 | 79 | 92.5 | 2 | 2.4 | — | — | — | — |
| 6 " | 400 | 369 | 92.2 | 31 | 7.7 | — | — | — | — |
| 7 " | 462 | 373 | 79.8 | 89 | 19.2 | — | — | — | — |
| 8 " | 572 | 425 | 69.6 | 136 | 23.7 | 2 | .3 | 9 | 1.5 |
| 9 " | 524 | 357 | 63.2 | 156 | 29.7 | 4 | .7 | 7 | 1.3 |
| 10 " | 584 | 403 | 64.4 | 160 | 27.3 | 2 | .3 | 19 | 3.2 |
| 11 " | 550 | 363 | 61.1 | 162 | 29.4 | 2 | .3 | 23 | 4.1 |
| 12 " | 619 | 439 | 61.7 | 142 | 22.9 | 4 | .6 | 34 | 5.4 |
| 13 " | 546 | 378 | 62.8 | 139 | 25.4 | 6 | 1.09 | 23 | 4.2 |
| 14 " | 319 | 217 | 64.9 | 84 | 26.6 | 4 | 1.2 | 14 | 4.3 |
| Total | 4657 | 3403 | 73.0 | 1101 | 23.6 | 24 | .5 | 129 | 2.7 |

Table F shows that of the children examined who had permanent teeth 73.0 per cent. had sound or artificially sound permanent teeth. A further 23.6 per cent. were made sound during the year. Thus, after treatment, 96.6 per cent. of the children examined with permanent teeth were left with that dentition free from caries. Comparison with the same results last year shows an increase of 3.8 per cent., and represents 4504 children.

The proportion of children with unsaveable permanent teeth after treatment is almost nil, representing a further decrease of .2 per cent. as compared with the year 1921, and the percentage of refusals has been reduced from 6.2 per cent. in 1921 to 2.7 per cent. in the year 1922.

With reference to children refusing dental treatment, it should be stated that those children who state either verbally or in writing that they will receive treatment privately their word is accepted, and such children are not included as refusals, because one cannot ascertain until some future inspection whether the work has been attended to or not. Generally, unfortunately, one finds that the parents of such children have no such intention, and the teeth suffer accordingly. However, the number of children in Cambridge refusing treatment is very small and therefore satisfactory.

IV.—SUMMARY OF EXAMINATION OF NEW PATIENTS.

The number of new patients examined for the first time in the year 1922 was 1358.

V.—Table showing the number, age and sex of the children examined for the first time in the year 1922, and the number of sound, decayed saveable and decayed unsaveable teeth of each dentition that they possessed.

| Age. | Number of Boys. | Temporary Teeth. | | | Permanent Teeth. | | |
|-----------|-----------------|------------------|-------------------|---------------------|------------------|-------------------|---------------------|
| | | Sound. | Decayed Saveable. | Decayed Unsaveable. | Sound. | Decayed Saveable. | Decayed Unsaveable. |
| 5 Years | 231 | 3922 | 438 | 147 | 51 | — | — |
| 6 " | 197 | 2712 | 373 | 478 | 565 | 33 | — |
| 7 " | 91 | 978 | 111 | 165 | 616 | 25 | — |
| 8 " | 46 | 363 | 61 | 157 | 455 | 34 | — |
| 9 " | 33 | 272 | 17 | 50 | 418 | 31 | 2 |
| 10 " | 33 | 163 | 2 | 46 | 370 | 28 | 6 |
| 11 " | 15 | 77 | — | 10 | 280 | 11 | 1 |
| 12 " | 19 | 26 | 3 | 7 | 383 | 10 | 3 |
| 13 " | 15 | 6 | — | 1 | 386 | 5 | 1 |
| 14 " | 5 | 7 | — | — | 118 | 10 | 8 |
| Total ... | 685 | 8526 | 1005 | 1061 | 3642 | 187 | 21 |

| Age. | Number of Girls. | Temporary Teeth. | | | Permanent Teeth. | | |
|-----------|------------------|------------------|-------------------|---------------------|------------------|-------------------|---------------------|
| | | Sound | Decayed Saveable. | Decayed Unsaveable. | Sound. | Decayed Saveable. | Decayed Unsaveable. |
| 5 Years | 233 | 4120 | 362 | 224 | 91 | 1 | — |
| 6 " | 182 | 2376 | 342 | 335 | 782 | 27 | — |
| 7 " | 88 | 949 | 117 | 223 | 757 | 45 | 1 |
| 8 " | 62 | 529 | 55 | 119 | 636 | 39 | 4 |
| 9 " | 29 | 210 | 4 | 38 | 428 | 14 | 3 |
| 10 " | 23 | 151 | 2 | 35 | 325 | 14 | 5 |
| 11 " | 25 | 79 | 1 | 7 | 556 | 21 | 6 |
| 12 " | 11 | 13 | — | 5 | 238 | 4 | 8 |
| 13 " | 12 | 2 | — | 3 | 307 | 12 | 5 |
| 14 " | 8 | 4 | — | 4 | 216 | 16 | 8 |
| Total ... | 673 | 8433 | 883 | 993 | 4336 | 193 | 40 |

VI.—Table showing Results of an Examination of 548 children who required no Treatment previously.

| Age. | Number of Boys. | Temporary Teeth. | | | Permanent Teeth. | | |
|---------|-----------------|------------------|------------------|----------------------|------------------|------------------|----------------------|
| | | Sound. | Decayed Saveable | Decayed Un-saveable. | Sound. | Decayed Saveable | Decayed Un-saveable. |
| 5 Years | 18 | 326 | 26 | 10 | 13 | — | — |
| 6 „ | 28 | 450 | 26 | 35 | 55 | — | — |
| 7 „ | 56 | 744 | 91 | 85 | 338 | 13 | 1 |
| 8 „ | 37 | 309 | 40 | 83 | 373 | 12 | 2 |
| 9 „ | 16 | 134 | 9 | 29 | 181 | 8 | 3 |
| 10 „ | 27 | 172 | 4 | 15 | 396 | 14 | 5 |
| 11 „ | 19 | 72 | 2 | 8 | 392 | 4 | 5 |
| 12 „ | 18 | 30 | — | 9 | 386 | 3 | 3 |
| 13 „ | 15 | 10 | 1 | 3 | 332 | 12 | 8 |
| 14 „ | 10 | 1 | — | 6 | 230 | 2 | — |
| Total | 244 | 2248 | 199 | 283 | 2696 | 68 | 27 |

| Age. | Number of Girls. | Temporary Teeth. | | | Permanent Teeth. | | |
|---------|------------------|------------------|------------------|----------------------|------------------|------------------|----------------------|
| | | Sound. | Decayed Saveable | Decayed Un-saveable. | Sound. | Decayed Saveable | Decayed Un-saveable. |
| 5 Years | 22 | 479 | 25 | 1 | 6 | — | — |
| 6 „ | 24 | 409 | 27 | 9 | 83 | — | — |
| 7 „ | 61 | 714 | 92 | 77 | 440 | 21 | 2 |
| 8 „ | 72 | 681 | 84 | 146 | 738 | 23 | 2 |
| 9 „ | 26 | 186 | 6 | 71 | 343 | 19 | — |
| 10 „ | 24 | 134 | — | 15 | 423 | 12 | — |
| 11 „ | 17 | 48 | — | 12 | 335 | 12 | 11 |
| 12 „ | 25 | 47 | — | — | 574 | 13 | 7 |
| 13 „ | 23 | 33 | — | — | 596 | 9 | 7 |
| 14 „ | 10 | 1 | — | — | 271 | 2 | 4 |
| Total | 304 | 2732 | 234 | 331 | 3809 | 111 | 33 |

Of the 5276 children Inspected in the year 1922, there were 548 or 10·3 per cent whose teeth had required no treatment previously, 244 Boys and 304 Girls. This is a decrease of 2·5 per cent as compared with similar patients in 1921.

VII.—Table showing the Results of an examination of 3370 Children who had been treated previously.

| Age. | Number of Children. | Temporary Teeth. | | | Permanent Teeth. | | |
|---------|---------------------|------------------|------------------|----------------------|------------------|-------------------|----------------------|
| | | Sound. | Decayed Saveable | Decayed Un-saveable. | Sound. | Decayed saveable. | Decayed Un-saveable. |
| 5 Years | 39 | 492 | 44 | 17 | 13 | — | — |
| 6 " | 110 | 1584 | 128 | 91 | 388 | 8 | — |
| 7 " | 182 | 1880 | 231 | 279 | 1424 | 74 | 2 |
| 8 " | 355 | 2699 | 205 | 588 | 3815 | 161 | 11 |
| 9 " | 420 | 2232 | 196 | 768 | 5566 | 229 | 11 |
| 10 " | 477 | 1788 | 101 | 699 | 7149 | 261 | 26 |
| 11 " | 474 | 1069 | 58 | 420 | 9362 | 267 | 78 |
| 12 " | 546 | 658 | 27 | 207 | 11541 | 284 | 119 |
| 13 " | 481 | 259 | 6 | 62 | 10907 | 284 | 73 |
| 14 " | 286 | 76 | — | 14 | 6282 | 155 | 37 |
| Total | 3370 | 12737 | 996 | 3145 | 56447 | 1723 | 357 |

Table VII. indicates the necessity for a minimum of one inspection for each child annually. The figures indicated in the above columns are infinitely better than that for the year 1921, and the fact that there were many children treated previously who required further treatment this year was due to several children having lost the opportunity for treatment in the year 1921. It will be noted that 2,267 children were examined in 1921 and 5,276 in 1922. The larger number of children Inspected annually, coupled with active conservative treatment of the temporary dentition, will undoubtedly tend to reduce the number of decayed saveable teeth and the number of decayed unsaveable teeth to an absolute minimum.

VI.—SUMMARY OF HYGIENE OF THE MOUTH.

The annual routine round of inspections revealed the fact that there are still large numbers of school children who do not clean their teeth, in fact, it can hardly be stated that the percentage has improved at all as compared with that of the Year 1921, which was 85 per cent. of the children with unclean mouths.

Apparently parents fail to realise (1st) To procure for their children a correct diet, and (2nd) To insist on absolute cleanliness of their teeth would prevent decay to a vast extent, and by preventing decay to have children in a healthy condition, body, mind and limb, and they would, incidentally, be providing their children with sound dentitions without the aid of a Dental Surgeon (other than periodical examinations), who, tho' provided with all the medicaments necessary for the painless removal of decay, is nevertheless unavoidably placed in a position to cause some discomfort to the little people.

Cleanliness of the oral cavity is looked for and expected by a Dental Surgeon, and evidently because cleanliness is purely voluntary there is neglect. The dental treatment of school children is, generally speaking, voluntary also, but the parents of the children attending the Elementary Schools in Cambridge are in this instance most devoted to the interests and welfare of their children, as evidenced by the fact that 90 per cent. or more accept the treatment offered. If, therefore, Parents are so sensible in this respect is it not reasonable to suppose that they will also enter this question of cleanliness with the necessary enthusiasm to ensure success. Prevention of decay in teeth is better than the necessity for cure once the disease has become established.

The importance of oral cleanliness cannot be overlooked, and I am pleased to report that there is a proposal made by a Committee of the Borough awaiting confirmation, and I do not doubt for one moment that the following recommendations contained therein will be adopted.

- 1st. Teachers to be supplied with Toothbrushes to be sold to the children at cost price.
- 2nd. Teachers be allowed a margin of 5 per cent. on the average attendance for free distribution in the case of children being unable to purchase.
- 3rd. If the need for free distribution exceeds 5 per cent. the cases shall be reported to the Hygiene Committee for decision.
- 4th. The Teachers, by daily examination, shall ensure that the brushes are being properly and adequately used.

Hitherto the teaching profession has supported the work of the Dental Clinic to a praiseworthy degree, and though the above recommendations will add to their responsibilities, I feel confident that they will continue their support and I trust they will share in the satisfaction which will follow as a result, in part at least, of their labours.

With regard to a correct diet, one can only state that teeth are given us for masticating purposes, accordingly food which requires much chewing is beneficial and food which requires little or no chewing is harmful to the teeth.

“Clean spaced Teeth do not Decay.”

Table VIII. indicates the Condition of the Teeth of 5,276 Children after treatment in the Year 1922 revised from the bottom of Table C.

| Number of Children. | Temporary Teeth. | | | Permanent Teeth. | | |
|---------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|
| | Sound. | Decayed Saveable. | Decayed Unsaveable | Sound. | Decayed Saveable. | Decayed Unsaveable |
| 5276 | 37428 | 565 | 40 | 73765 | 47 | 24 |

A correct Diet, that is to say a Diet which brings the Muscles of Mastication and the Teeth into strenuous action, together with strict attention to cleanliness of the Teeth, brushing the same carefully after every meal would very materially assist, in fact, guarantee, freedom from active caries.

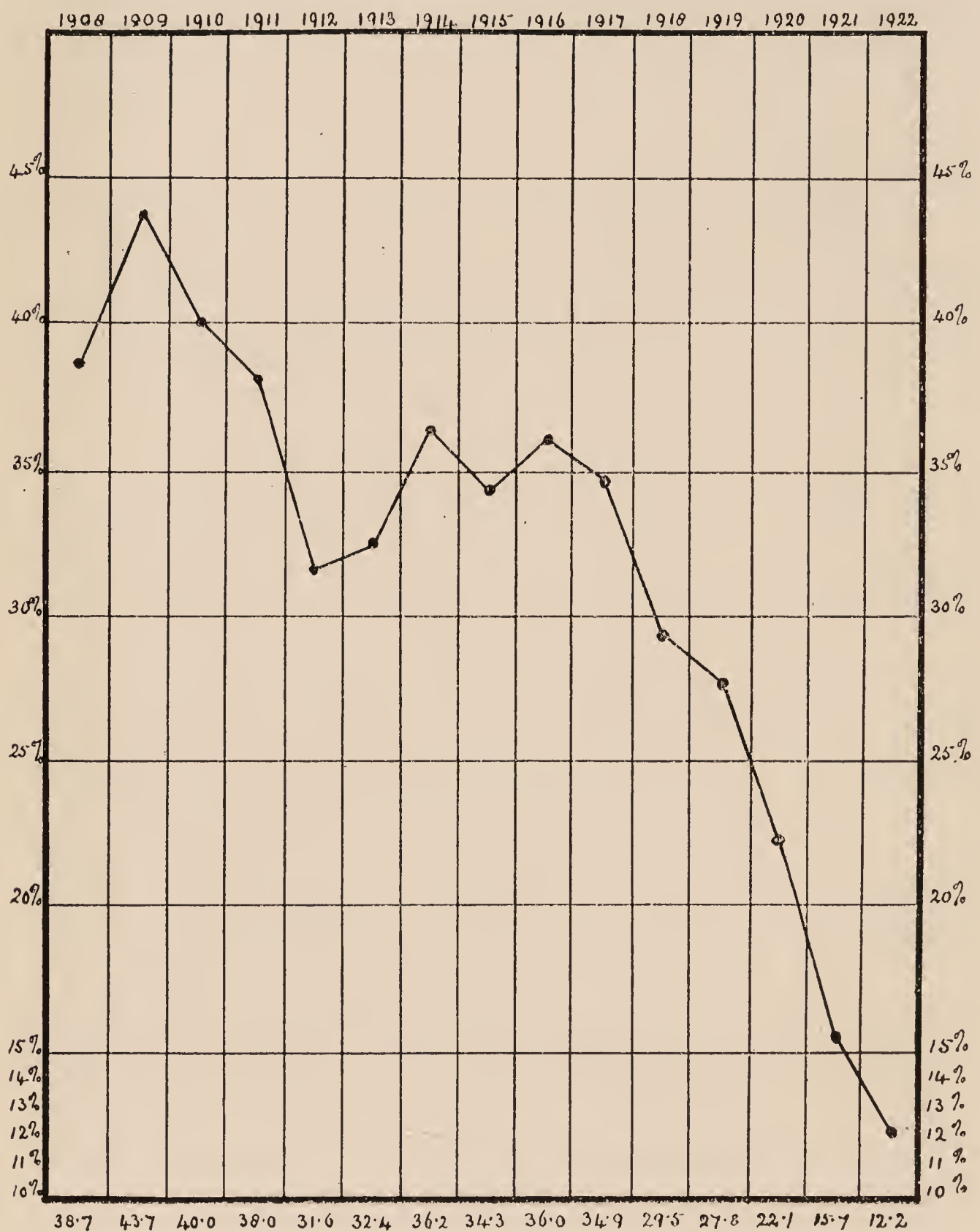
Table IX. shows the number of Temporary Teeth examined and the Percentage sound, the Percentage Decayed Saveable, and the Percentage Decayed Unsaveable, with similar results from previous years to permit of a comparison.

| Year | Number of Temporary Teeth Inspected. | Temporary Teeth. | | |
|-------|--------------------------------------|-------------------|------------------------------|--------------------------------|
| | | Percentage Sound. | Percentage Decayed Saveable. | Percentage Decayed Unsaveable. |
| 1908 | 32341 | 48.1% | 13.7% | 38.2% |
| 1913* | 44549 | 59.6 | 35.0 | 5.4 |
| 1914* | 49218 | 61.8 | 32.3 | 5.9 |
| 1915* | 52262 | 63.9 | 32.1 | 4.0 |
| 1916* | 44637 | 63.6 | 32.7 | 3.6 |
| 1917* | 44312 | 62.0 | 34.2 | 3.6 |
| 1918* | 42705 | 64.5 | 32.0 | 3.4 |
| 1919* | 53533 | 65.2 | 31.8 | 3.0 |
| 1920* | 36228 | 67.0 | 30.0 | 2.9 |
| 1921* | 16668 | 95.6 | 3.08 | 1.2 |
| 1922* | 43806 | 98.4 | 1.4 | .1 |

* After treatment during the year.

Further improvement in the Condition of the Temporary Dentition after treatment is noted for the year 1922.

Diagram.—Showing the percentage of Decay in the Temporary Teeth of the children aged 5 years, before treatment in each year of the Scheme of School Dental Inspection from 1908 to 1922 (both inclusive).



The above diagram indicates the percentage of decayed temporary teeth to the total number of temporary teeth present in the 5-year-old group of children, before treatment in each year that the scheme has been in existence.

It will be noticed that the fall in the percentage of decayed temporary teeth in the 5-year-old group of children is being maintained, and if no untoward circumstances arise one might expect the percentage to be still further reduced.

I believe this to be a direct result of the education of the mothers who attend the Maternity and Child Welfare Centres in large numbers, and also of the dental treatment of children under five years of age.

A period of fluctuation is noted between the years 1913—1916, and the explanation is that :—

- 1st. The extension of the borough boundary took place in 1912, thus greatly increasing the number of children requiring dental inspection and treatment.
- 2nd. The introduction of a fee paying system during that period resulted in a large number of refusals, who, by virtue of their refusing treatment, did not receive the attention which was urgently required, and this factor played no small part in the fluctuations as indicated by the graph. The abolition of the fee paying system resulted in an immediate improvement in the number of acceptances of dental treatment, so much so that a steady and continuous fall has taken place since 1916.

